

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

5 In re application of: Tara Chand Singhal)
)
 Serial No: 10/091,882) Art Unit
) 3692
 Filed: 03/06/2002)
 10 For: Method and Apparatus for)
 Restaurant Payment System)
 Examiner: Maguire, Lindsay M.)
 15 Attorney Docket: 11195.41)

APPEAL BRIEF

Commissioner for Patents

20 P O Box 1450, Alexandria, VA 22313-1450

Dear Sir:

This appeal brief and a transmittal form is being filed *without* the required fee of \$270.00, as this fee has already been paid as part of filing of the original appeal brief. The new Notice of Appeal was filed 7/21/2010 on the new Final office action dated
 25 04/27/2010 and the claims have been twice rejected as required under 37 CFR §41.31.

The appeal is timely filed with in the two months statutory period of the Notice of Appeal, and complies with the requirements of 37 CFR §41.37 Appellant's brief. It should be noted that the Appellant is the applicant/inventor pro se and is not a registered practitioner.

30 **CERTIFICATE OF MAILING UNDER 37 CFR §1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Mail Stop: Appeal Brief, Commissioner for Patents, P O Box 1450, Alexandria, VA 22313-1450, on Sept 21 / 2010 by

35 Tara Chand Singhal TARA CHAND SINGHAL, Applicant

5

APPEAL BRIEF under 37 CFR §41.31.

BEFORE

10

**THE BOARD OF PATENT APPEALS AND INTERFERENCES
P O BOX 1450, ALEXANDRIA, VA 22313-1450**

15

APPLICATION NUMBER: 10/091,882

FILING DATE: 03/06/2002

APPELLANT(S): SINGHAL, TARA CHAND

20

TABLE OF CONTENTS

5	1. REAL PARTY IN INTEREST	4
	2. RELATED APPEALS AND INTERFRECNES	4
	3. STATUS OF CLAIMS	4
10	4. STATUS OF AMENDMENTS	4
	5. SUMMARY OF CLAIMED SUBJECT MATTER	5
15	6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL	13
	7. ARGUMENT	14
	GROUND 1	14
	GROUND 2	30
20	8. CLAIMS APPENDIX	57
	9. EVIDENCE APPENDIX	62
25	10. RELATED PROCEEDINGS APPENDIX	62

(1) REAL PARTY IN INTEREST

Tara Chand Singhal, applicant/inventor

5 **(2) RELATED APPEALS AND INTERFERENCES**

None

(3) STATUS OF CLAIMS

10 Claims 1-17 have been canceled without prejudice. Claims 18-32 have been rejected in a Final Office Action dated 04/27/2010. Claims 18-32 are pending in the Application and are the subject of this appeal.

(4) STATUS OF AMENDMENTS

15 Examiner has pointed out an informality in claim 18, where (iv) has been used twice. To correct this informality in claim 18, the second use of (iv) has been corrected by amending the second use of (iv) in claim 18 to (v) in the claims in the Claim Appendix to this Appeal.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The embodiments facilitate secure payment to restaurant merchants, by the
5 restaurant customer, without transferring customer identity bankcard data to the
merchant employees and merchant computer sales systems, from where the
customer identity bankcard data has been subject to theft and misuse.

The embodiments use a central system that pre-stores customer bankcard
10 data and merchant data and the central system interfaces that enable customers
and merchants to store such data.

In the restaurant the merchant point of sale system creates a paper bill that
has printed on it, in addition to cost of meals, tax, and total payment amount, a
15 service code. The service code contains merchant identification code to the central
system, a table number and a serve number. The paper bill is presented to the
customer for payment of meals served.

The customer, using his/her wireless web enabled device, connects to the
20 central system and is presented a web data form from the central system. The
customer then transfers or enters in the data form, the service code, the total dollar
bill payment amount, and an optional tip and sends the completed form to the central
system.

25 The central system with pre-stored merchant data and customer data,
assembles a payment authorization record from the customer to the restaurant
merchant and processes the bankcard payment authorization with a prior art card
authorization network. The central system then receives a payment approval record
from the card authorization network. The central system then adds to the payment
30 approval record, a table and server identification, and sends to the merchant point of

sale systems. The central system also sends the payment approval record to the customer on his/her cell phone.

The merchant point of sale system displays the received payment approval record from the central system on a display terminal that identifies each payment by date, time, server, table number, payment amount, and payment status, enabling the employees of the restaurant to see that the payment has been made by a specific customer.

Thus a payment is made to a restaurant merchant on being presented a paper bill with a service code, by a customer using his/her wireless device, without the customer transferring/copying his/her customer identity bank card data in to the merchant computer systems and their employees/staff.

Summary

[Page 3, lines 22-29, Page 4, lines 1 to 14] The payment system includes a central system and a portable wireless device, a card processor, and a merchant payment terminal system. The following steps may be used to effect an efficient and secure payment to the restaurant.

The bill being presented by a waiter carries a service code, identifying a merchant number, a table number and a server number. On receiving the bill, the customer using the wireless device connects to a secure web connection with the central system and is presented a data card to enter data. The customer enters the service code, payment amount and the customer number. The central system with the pre-stored data of the merchant and the customer and using the card processor processes the payment. After the approval of the payment transaction is received from the card processor, the central system presents to the customer, on the wireless device, a data card showing that the payment has been processed. The central system concurrently also sends to the merchant payment terminal system a

data record showing the payment amount, the table number and the server number from where the payment has been processed successfully.

5 The central system 10 stores and/or can readily access merchant data including merchant id and personal data of a customer including information regarding one or more bank accounts of the customer.

Concise explanation of subject matter in claims involved in the appeal:

10 The following states a concise explanation of the subject matter defined in each of the independent claims involved in the appeal. The independent claims are: 18, 24 and 30, for which a concise explanation is being identified here by reference to page number, line number, and Figure number and by references numbers where applicable.

15 **Claim 18 and dependent claims:**

[Page 6, line 1 to page 13, line 29, and Figures 3 and 4.] The invention discloses system for a

20 Restaurant payment system that teaches a central system, a paper bill with a service code presented in the restaurant, and use of a customer wireless device to connect to the central system to make a payment to the merchant using the service code, that does not transfer customer id data to merchant.

25 A payment system for restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, has a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central system that is separate from the merchant system; a wireless device of the customer with, (i) means for entering the service code, a payment amount, and an optional tip into the device, and (ii) means for sending the data to the central system which pre-stores customer data and merchant data;

30 central system means for identifying the customer and processing a payment request from the customer to the merchant by retrieving customer and merchant

data and submitting a payment transaction request to an existing payment authorization network; central system means for receiving a payment approval record and sending payment approval notification to the customer on the wireless device; central system means for sending payment approval notification to the merchant system, wherein the central system having submitted the payment transaction request, the payment system maintains privacy of customer bankcard data from the merchant system.

The central system stores (i) customer identification means, (ii) a plurality of customer bank account data and (iii) wireless device notification means. The system uses a customer identification means using a personal number that is a combination of wireless device telephone number and a personal identification number that is entered into the wireless device.

The central system stores merchant identification that identifies the merchant to a payment authorization network and merchant computer system notification means.

The service code includes in addition to the merchant number identification, a table number and a server number.

The system has a payment approval notification to the merchant system includes the table number and the server number enabling a display terminal interfaced to the merchant system to display payment status data that includes a date, a time, a transaction reference, the table number, the server number, the payment amount, tip and a payment status.

For each claimed element of claim 18, the identification is as follows:

Claim 18 element (a)

page 6, lines 16-21; page 9, lines 10 to 14;

Claim 18 element (b)

page 6, lines 10-11; lines 24 to 28; page 13, lines 17 to 21

Claim 18 element (c)

page 6, lines 20-22; lines 26-28; page 8, lines 19-22; page 10, lines 27-30

page 11, lines 17-22; page 6, lines 5-9; page 11, lines 24-27, page 12, and lines 4 to

5 15.

Claim 24 and dependent claims:

[Page 6, line 1 to page 13, line 29, and Figures 3, 4 and 5.] The invention discloses payment system for a restaurant payment system that teaches a central
10 system, a paper bill with a service code presented in the restaurant, and use of a customer wireless device to connect to the central system to make a payment to the merchant using the service code, where the payment system does not transfer customer id data to merchant.

A payment system for restaurant merchants that provides privacy of customer
15 bankcard data of a customer from a merchant system, has a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central system that is separate from the merchant system; a wireless device of the customer with, (i) means for entering the service code, a payment amount, and an optional tip into the device, and (ii) means for sending the
20 data to the central system which pre-stores customer data and merchant data; central system means for identifying the customer and processing a payment request from the customer to the merchant by retrieving customer and merchant data and submitting a payment transaction request to an existing payment authorization network; central system means for receiving a payment approval
25 record and sending payment approval notification to the customer on the wireless device; central system means for sending payment approval notification to the merchant system, wherein the central system having submitted the payment transaction request, the payment system maintains privacy of customer bankcard data from the merchant system.

30

The central system stores (i) customer identification means, (ii) a plurality of customer bank account data and (iii) wireless device notification means. The system uses a customer identification means using a personal number that is a combination of wireless device telephone number and a personal identification number that is
5 entered into the wireless device.

The central system stores merchant identification that identifies the merchant to a payment authorization network and merchant computer system notification means.

10 The service code includes in addition to the merchant number identification, a table number and a server number.

The system has a payment approval notification to the merchant system includes the table number and the server number enabling a display terminal
15 interfaced to the merchant system to display payment status data that includes a date, a time, a transaction reference, the table number, the server number, the payment amount, tip and a payment status.

For each claimed element of claim 24, the identification is as follows:

20 Claim 24 element (a)

page 6, lines 16-21; page 9, lines 10 to 14;

Claim 24 element (b)

page 6, lines 10-11; lines 24 to 28; page 13, lines 17 to 21

Claim 24 element (c)

25 page 6, lines 20-22; lines 26-28; page 8, lines 19-22; page 10, and lines 27-30

Claim 24 element (d)

page 11, lines 17-22.

Claim 24 element (e)

page 6, lines 5-9; page 11, lines 24-27, page 12, lines 4 to 15.

30

Claim 30 and its dependent claims:

[Page 6, line 1 to page 13, line 29, and Figures 3, 4 and 5.] The invention discloses system for a

5 Restaurant payment system that teaches a central system, a paper bill with a service code presented in the restaurant, and use of a customer wireless device to connect to the central system to make a payment to the merchant using the service code, that does not transfer customer id data to merchant.

A payment system for restaurant merchants that provides privacy of customer
10 bankcard data of a customer from a merchant system, has a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central system that is separate from the merchant system; a wireless device of the customer with, (i) means for entering the service code, a payment amount, and an optional tip into the device, and (ii) means for sending the
15 data to the central system which pre-stores customer data and merchant data; central system means for identifying the customer and processing a payment request from the customer to the merchant by retrieving customer and merchant data and submitting a payment transaction request to an existing payment authorization network; central system means for receiving a payment approval
20 record and sending payment approval notification to the customer on the wireless device; central system means for sending payment approval notification to the merchant system, wherein the central system having submitted the payment transaction request, the payment system maintains privacy of customer bankcard data from the merchant system.

25 The central system stores (i) customer identification means, (ii) a plurality of customer bank account data and (iii) wireless device notification means. The system uses a customer identification means using a personal number that is a combination of wireless device telephone number and a personal identification number that is entered into the wireless device.

30 The central system stores merchant identification that identifies the merchant to a payment authorization network and merchant computer system notification

means. The service code includes in addition to the merchant number identification, a table number and a server number.

The system has a payment approval notification to the merchant system includes the table number and the server number enabling a display terminal
5 interfaced to the merchant system to display payment status data that includes a date, a time, a transaction reference, the table number, the server number, the payment amount, tip and a payment status.

For each claimed element of claim 30, the identification is as follows:

Claim 30 element (a)

- 10 page 6, lines 16-21; page 9, lines 10 to 14;
page 6, lines 10-11; lines 24 to 28; page 13, lines 17 to 21
page 6, lines 20-22; lines 26-28; page 8, lines 19-22; page 10, and lines 27-30

Claim 30 element (b)

- page 11, lines 17-22.
15 page 6, lines 5-9; page 11, lines 24-27, page 12, lines 4 to 15.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

GROUND #1

5 Examiner has rejected claims 18, 24 and 30 under 35 USC, §112 first paragraph, as failing to comply with the written description requirements. Specifically the rejection is based on the Examiner's assertion that the recitation, "a central computer system that is independent from the merchant systems" in each of these claims is not found within the specification.

10 Appellant disagrees with the rejection based on the examiner's assertion as above as the specification does disclose the claimed feature and Examiner's erroneous assertion is due to the examiner's lack of understanding of the technologies of the subject matter for which the specification is written for.

15 **GROUND #2:**

Examiner has rejected claims 18-32, under 35 USC 103(a) Obviousness Rejection as being unpatentable over Showghi et al., US Patent No. 6,473,739, in view of US Pat No. 5,933,812 (Meyer et al, 812).

Appellant submits such rejection is improper under 35 USC 103(a) and
20 Graham v. Deere which governs determination of obviousness by the USPTO.

Examiner misconstrues and misunderstands the nature and scope of the claimed subject matter" as used in the claims in light of the specification and thus has erred in applying the "Broadest reasonable construction" standard and as a
25 basis for 103(a) obviousness rejection.

Further Examiner misunderstands and mis-cites KSR v. Teleflex, and its seven rationales to support 103 (a) rejections, under an obviousness enquiry.

30

(7) ARGUMENTS

GROUND #1

Examiner has rejected claims 18, 20 and 32 under 35 USC, §112 first
5 paragraph, as failing to comply with the written description requirements. Specifically
the rejection is based on the Examiner's assertion that the recitation, "a central
computer system that is independent from the merchant systems" is not found within
the specification.

Appellant disagrees with the rejection based on the examiner's assertion as
10 the specification does disclose the claimed feature and Examiner's erroneous
assertion is due to the examiners lack of understanding of the technologies of the
subject matter for which the specification is written for.

Appellant's Arguments

15 Examiner misunderstands and misconstrues the specification and the subject
matter. Given that lack of understanding of the technologies and the subject matter,
examiner misconstrues the nature and scope of the claims at issue relative to the
specification, Examiner then proceeds to misapply the 35 USC, §112 first paragraph
as detailed below in this Brief.

Subject matter of the specification

20 The specification is written for and is on a computer based system. The
computer based systems are different than a single computer or a digital machine and
are comprised of multiple computers performing different functions of a system as a
25 whole and that are connected or interfaced with each other via private or public
communication networks such as the Global Computer Network.

When multiple computers are used in a computer-based system, the functions
or operations of the entire system are divided or split among these computers, where
30 some of the functions are carried out by some computer and while other function of the
system are carried out by other computers. These computers with the help of

interfaces in each computer and the communication networks, exchange, transfer or receive or transmit data to other computers of a computer based system.

More often than not, in these computer-based systems, these computer or
5 computer networks are owned by different business entities. An example of such a
computer based system is a prior art payment authorization system. In a payment
authorization network system, merchant's sales computer or sales computer systems
are interfaced to a router network which routes the transaction records between the
10 merchant systems and the card-issuing banks' computer systems, for sending a
payment authorization request record and receiving a corresponding payment approval
transaction record. In such a payment authorization system, the merchant computer
systems, the router network computers and the card-issuing bank computers are
owned by different businesses and interface with each other to perform the function of
15 payment authorizations for payments from the customer to the merchant using
bankcards that are issued by a card-issuing bank. The router network computers are
managed by a business entity which provides a service and charges fees for such
service from the card-issuing bank, which in turn charges fees from the merchant for
the service. While these three entities provide computers for a computer based system
they are independent business entities that manage independent computer systems
20 that communicate with other computer systems owned by other business entities using
an agreed upon interface protocol.

The current specification is on such a computer based system that teaches a
central system that is interfaced with (i) a customer wireless device, (ii) a merchant
25 computer system, and (iii) a router network for access to the card-issuing banks. That
is, the central system is independent of the merchant system, the router network for
access to the card-issuing banks and the customer even though the central system
interfaces with each of them as part of a payment authorization system that protects
customer id and bankcard data from the merchant computer systems. The central
30 system is used to keep customer private bankcard data from being disseminated to
every merchant they make a payment with the bankcards of the customer, thus

providing a privacy and security service as the customer data has been subject to theft and misuse from others while being disseminated and stored in the merchant systems. Figures 3 and 4 of the current specification, as copied here later, clearly show that independent nature of the central system and teach its functions and its interfaces to the merchant system, the customer wireless device, and the router network. Figure 3 shows the central system as an independent system and shows its interfaces to the other systems. Figure 4 shows the construction details of the central system. Examiner fails to understand such a subject matter.

Specifically the specification teaches and discloses a unique payment system that is comprised of computers and interfaces between these computers. The unique payment system is for making payments to restaurant merchants without divulging customer bankcard data to the merchant computer systems.

The unique payment system teaches a wireless device of a paying customer that interfaces with an independent central system. The central system pre-stores customer and merchant data of many customers and merchants and assembles a payment authorization request records for payment from customers to merchants and send them to the card-issuing banks and receives the payment approval records for these payment transactions and forwards the payment approval record to the merchant computer systems as well as to the wireless devices of the customers.

That is, the central system acts in the role of an intermediary to enable payments to be made from the customer to the merchant and not disclose private bankcard data to the merchant systems, while still enabling the merchant to be paid by the customer. Since the specification is specific to a restaurant merchant, the bill from the restaurant merchant initiates the transaction by the customer as the bill or check has merchant identification codes, which are recognized by the central system.

Hence the central system is independent of the merchant system as well as the card-issuing bank systems, while it interfaces with each of them for sending the payment transaction records between them. That is the central system is independent

of both the merchant system to accomplish its primary objective to stop the bankcard data being copied into the merchant computer systems.

The specification clearly describes and identifies with references to Figure 3, the central computer system 10 as an independent computer system, independent from the merchant systems 08 and merchant payment terminal 04. The central computer system 10 cannot be confused with the merchant system 08, as being part of it or not independent of it, just because the central computer system 10 has an interface with the merchant system 08 for payment authorization notification. Just like, the central computer system 10 is independent of the card processor 36 and independent of the cell phone 12, even though the central computer system 10 has interfaces with the card processor 36 for payment authorizations and an interface with the cell phone 12 for originating a payment transaction.

To further illustrate the independent nature of the central system, the specification including Figures 3 and 4 is copied below and the section of the specification are highlighted in bold which teach the independent central system

The specification

DESCRIPTION

Introduction

The present invention is directed to a payment system for restaurant industry that facilitates efficient payment using a bankcard for a meal in a restaurant and also without providing personal sensitive data from bankcards to employees/waiters of the restaurant.

With initial reference to Figure 3, the payment system 02 includes a central system 10 and a portable wireless device 12 and a card processor 36. A partition 20 may divide the dining tables with a customer 06 from the merchant

computer system 08 with a payment terminal 04. A waiter 22 makes a trip to bring a bill 26 to the customer 06.

The bill 26, in addition to the normal items, as illustrated in Figure 3, carries a service code 336. The service code 336 may be made up of three parts, the merchant number 442, the table number 352 and the server number 354.

The central system 10 stores and/or can readily access merchant data including merchant ID and personal data of a customer including information regarding one or more bank accounts of the customer.

On receiving the bill 26, the customer 06 using device 12 connects to a secure web connection with the system 10 and is presented a data card 14. The customer enters the data as identified and as described later. The central system 10 with the pre-stored data of the merchant and customer and using the card processor 36 process the payment. After the approval of the payment transaction is received from the card processor 36, the central system 10 presents to the customer, on the wireless device 12, a data card 16, showing that the payment has been processed. **The central system 10 concurrently sends to the merchant system 08 a data record 24 showing the payment has been processed successfully.** Optionally, the merchant system 08 is attached to a display terminal 23 that displays the table number, server number, amount and the status of the payment by a color coded display icon 18, where the waiter 22 may verify the payment has been made.

These and other aspects of the invention are described herein, where the headings are provided for the convenience of the reader.

Wireless Device 12

The portable wireless device 12 may be a cellular telephone with a screen and a keypad. Alternatively, it may be personal digital assistant (PDA) with a wireless modem, which also has a display screen and a soft keypad.

Central System 10

Referring to Figure 4, the central system 10 includes (i) a system storage device 426, (ii) a system operating system 402 stored in the system storage device
5 426, (iii) a system program 404 stored in the system storage device 426, (iv) and a system processor 430 connected to the system storage device 426.

The system processor 430 can include one or more conventional CPU's. The system processor 430 can be capable of high volume processing and database
10 searches.

The system storage device 426 can, for example, include one or more magnetic disk drives, magnetic tape drives, optical storage units, CD-ROM drives and/or flash memory. The system storage device 426 also contains a plurality of
15 databases used in the processing of transactions pursuant to the present invention. For example, as illustrated in Figure 4, the system storage device 426 can include a merchant database 440, a customer database 438 and a transaction database 442.

The system 10 includes a system network interface (not shown) that
20 **allows the system 10 to communicate with the customer 06 and the merchant 08 and the card processor 36.** Conventional internal or external modems may serve as the system network interface. In one embodiment, the system' network interface is connected to the customer, merchant and the card processor on a global network.

25 **A merchant network interface (not shown) allows the merchant 08 to communicate with the system 10.** Conventional internal or external modems may serve as the merchant network interface. In one embodiment, the merchant network interface is connected to the system 10 on the global network.

A customer network interface (not shown) allows the customer to communicate with the system 10. Conventional internal or external modems may serve as the customer network interface. In one embodiment, the customer network interface is connected to the system 10 on the global network.

5

The system 10 interfaces with a card processor 36 representing a bankcard authorization network. The bankcard authorization network is a computer system that process payments from bankcards using an automated clearing house to process payments between banks.

10

The system processor 430 is operative with the system program 404 to perform the Security Function 406, Payment Processing Function 408, Customer Interface function 410, Merchant Interface function 412, and Interface function 414.

15

Customer database 438

With reference to Figure 4, the customer database 438 within the central system 10 contains private data specifically related to the customer 06 that is transferred to the system 10 from the customer.

20

This database contains the customer identifier 450, CPIN 456, Bank account data 458 and e-mail address 460. The telephone number of the wireless device may serve as the customer identifier. Multiple CPIN and bank account data for each customer may be maintained allowing a customer to use any one of his/her accounts whether they are checking accounts, debit card accounts or credit card accounts.

25

Card personal identification number (CPIN) may be used to identify one of many cards that the customer wishes to use for a payment.

Merchant database 440

This database maintains data on the merchants who use the payment system 02. The database 440 maintains data on each of the merchant as

30

merchant number 442, merchant name 444, a URL 446, a merchant identification 448, and e-mail address 450.

Merchant ID 448 is an existing ID of the merchant that is used to process his existing card transactions. URL 446 is the uniform resource locator on the global network of his computer system 08, where he can receive the payment record 24 from the central system 10. Alternatively, E-mail 450 is where he can receive record 24 from the central system 10 of payment transactions.

Transaction database 442

This database logs all payment transactions by a transaction reference 340, date/time of transaction 342, merchant number 442, amount 332, authorization code 334 received from the card processor 36, tip amount 330, table number 352, server number 354, and customer identification 450

Merchant System 08

With reference to Figures 3, the merchant system 08 is a prior art computer system. It may be used by the merchant in conjunction with a card processing terminal 04 that is connected to the card processor 36 to process card payments.

According to the present invention, the merchant system 08 may optionally be connected to a display terminal 23 that displays the status of payment transactions. The status of the payments may be displayed by the table number, the server number, the amount to be paid or paid and the status of the payment in a color-coded format 18. This enables the waiter 22 to readily determine that the payment has been successfully processed.

Optionally, the waiter 22 on preparing the bill 26 may use the computer system 08. When the bill 26 is prepared, the display terminal 23 may show the table number, server number, amount and status as payment in process. **When the**

record 24 is received by the merchant system 08 from the central system 10, the status may be updated as Paid and the amount may be updated to what was paid including the tip amount.

5 **Central System Program 404**

With reference to Figures 3 and 4, the central system program 404 is operative with the central system processor 430 to provide the functions of (i) Security Function 406, (ii) Payment Processing Function 408, (iii) Customer Interface Function 410, (iv) Merchant Interface Function 412, (v) and an Interface
10 function 414. Further, the system program 404 is operated with the payment system processor 430 to perform the tasks of the central system 10 provided herein.

The Security Function 406 performs the tasks of determining and verifying from the customer telephone number 450 and CPIN 456 the customer 06 and the
15 specific bank account 458 when the customer initiates a payment transaction using the wireless device 12. The system 10 is a secure server and uses encryption when communicating with the device 12 and the card processor 36.

The payment processing function 408 performs the tasks of creating payment
20 records and notification records that are transmitted to and from the central system 10. For each payment transaction initiated by the customer via device 12, a payment record to the card processor 36 is assembled. The payment record assembles the bankcard data of the customer 458, the merchant ID 448, the amount of the payment 332, and creates a transaction reference number 340. The system 10
25 computes the payment amount 332 as the summation of the total amount 328 and the tip amount 330.

Details of such a payment record are prior art and are used in processing payment transactions with a prior art card-processing network. The card-processing
30 network approves the payment and responds with an approval record containing the

same data as in payment record and additionally containing an authorization or approval code and date and time of the approval.

The central system 10 on receiving the payment approval record from the card processor 36 creates and sends notification records to the customer and the merchant. The notification record 16 is sent to the customer on device 12 and has the data of amount approved 332 and authorization code 334. The customer may copy this information on the bill 26 directly as tip 330, total 332 and authorization code 334

The notification record 24 is sent to the merchant 08 computer system and/or the merchant terminal 04 and has the data of transaction reference 340, date/time 342, approval Code 334, amount approved 332, The tip amount 330, table number 352 and server number 354.

The customer on receiving the record 16, may copy the information to the bill 26 as illustrated in italics. The customer may keep a copy of the bill 26. In addition, customer may receive an e-mail having details of this payment transaction for his/her electronic records.

The notification record 24 to merchant is similar to what he would have directly received from the card processor 36. The record 24 having come from the central system 10 additionally provides Tip 330, Table 352 and server 354 to enable the payment record to be associated with a specific service transaction by table and server. The record 24 separately identifies a tip amount that has been chosen by the customer enabling accounting for the tips to be allocated to the employees for tax purposes.

The Interface function 414 performs the tasks of (i) sending and receiving transaction records from and to the prior art card processor 36; (ii) receiving the record 14 from the customer and sending record 16 to the

customer on wireless device 12; (iii) and sending record 24 to the merchant system 08.

The central system 10 provides a customer interface (not shown) allowing
5 customer 06 to create account and enter account data. The customer Interface
function 410 performs the tasks of permitting the customer to open an account and
enter data of telephone number 450, a CPIN 456, and bankcard data 458 of name,
card number, expiration date and additional data of PIN or password. The interface
is web based. Alternatively, it could be voice based. The knowledge to create an
10 interface is prior art.

The central system 10 provides a merchant interface (not shown)
allowing merchant to create merchant account and enter data. The merchant
Interface function 412 performs the tasks of permitting the merchant to open
15 an account and enter data of merchant identification 448, merchant name 444,
e-mail 450 and URL 446 of the computer system on the global network. The
interface is web based. Alternatively, it could be voice based. The knowledge to
create an interface is prior art.

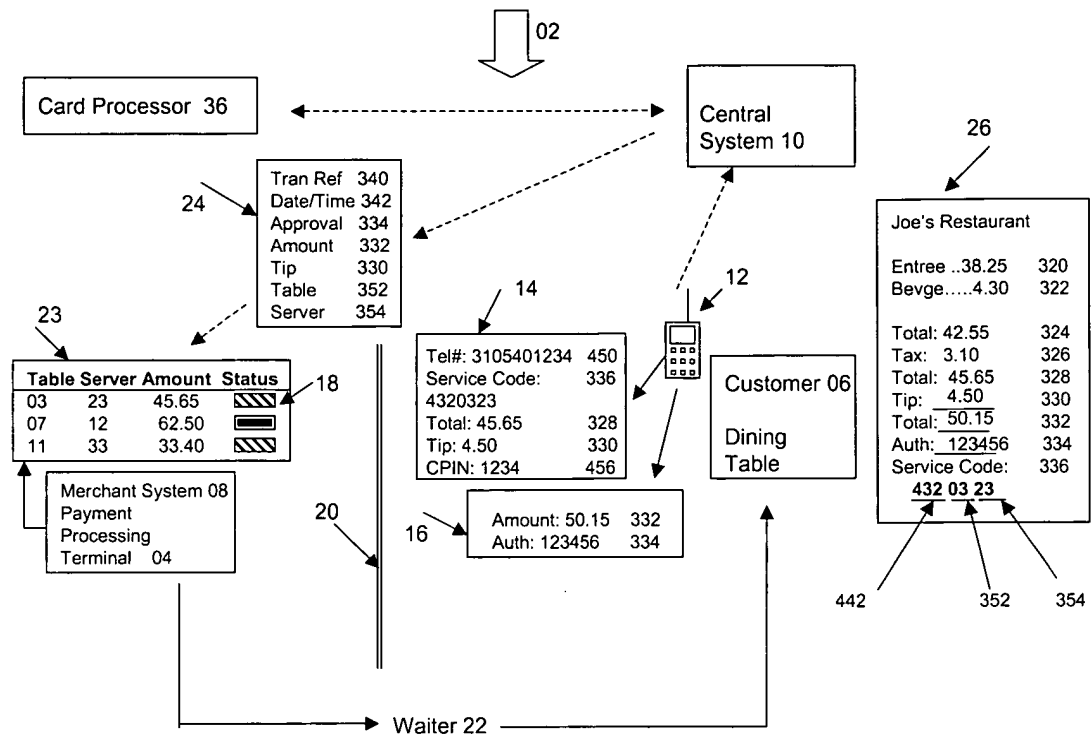
20 **Operation**

The operation of the apparatus 02 for a payment transaction between a
customer and a restaurant merchant can be further understood with reference to the
flow chart illustrated in Figure 5. Importantly, the order of some or all of the steps
can be varied. Further, not all of the steps outlined below may be necessary to
25 perform a payment transaction pursuant to the present invention.

**At step 500, merchant 08 opens an account with central system 10 with
a Merchant number 442 and providing merchant identifier 448, URL 446, e-mail
450.**

At step **502**, customer 06 opens an account at central system 10 with customer ID in form of telephone number 450, CPIN 456, e-mail 460 and bankcard data 458.

5 At step **504**, waiter 22 brings a bill 26 to a customer 06 with a service code 336. At step **506**, customer 06 takes out his/her wireless device 12 and connects to central system 10 website and is presented a data card 14. At step **508**, customer 06 enters data of customer ID 450, service code 336, amount 330, tip 332 and CPIN 456 and OK to send to central system 10. At step **510** central system 10 receives
10 record 14, uses customer id 450 to verify CPIN 456 and retrieves customer account data 458. **At step 512, central system 10 uses service code 336 to find merchant number 452, retrieve merchant ID 448, assemble payment record and sends to card processor 36.** At step **514**, central system 10 receives authorization record from card processor 36, forwards approval data to customer as
15 data card 16. **At step 516, central system 10 forwards approval data record 24 to merchant system 08 for display on display terminal 23 that includes table and server information and payment status 18.**



3 of 5

Figure 3

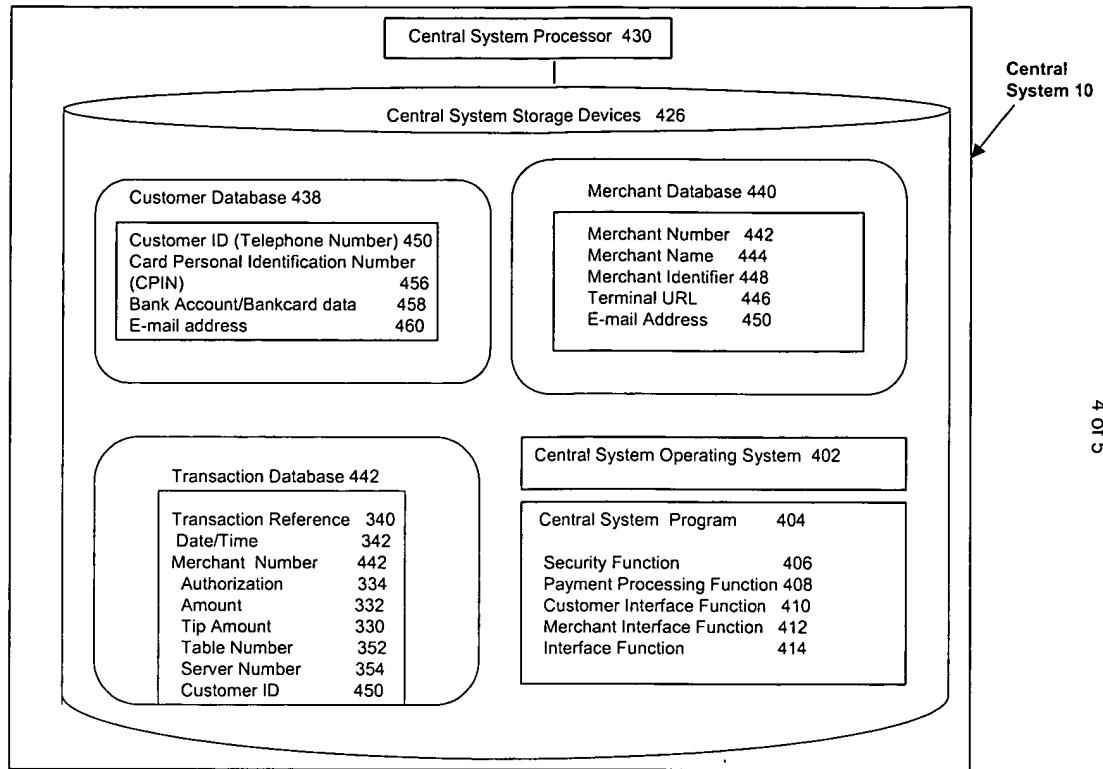


Figure 4

Further Figure 4, describes the construction of the central computer system 10, with description of processor and storage. The storage clearly identifies databases that store both the customer and merchant data necessary to effect a payment transaction from customers to a large number of merchants. Merchant database 440 maintains data on the merchant and their terminal address and e-mail address for notification of the payment authorizations. Further, Figure 5, step 500 shows that the merchant opens an account with the central computer system 10. Hence, the central computer system 10 cannot, not be independent of the merchant system 08. Further Figure 4 clearly identifies central system 10 as a central computer system 10

The claim 18, as follows, is on a payment system that provides for privacy of customer bankcard data from the restaurant merchant system. The elements of claim 18 clearly define the role and function of the central system vis-à-vis the merchant system and payment authorization network as an independent of each and acting in the role of as an intermediary between the two for completion of a payment transaction.

18. A payment system for restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, comprising:

a. a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central computer system that is independent from the merchant system;

b. a wireless device of the customer, (i) is entered a data of the service code, a payment amount, and an optional tip into the device, and (ii) the device wirelessly sends the data to the central computer system which pre-stores customer data and merchant data;

c. the central computer system has a processor (i) that identifies the customer (ii) processes a payment request from the customer to the merchant by retrieving customer and merchant data and submits a payment transaction request to an existing payment authorization network; (iii) receives a payment approval record from the payment authorization network (iv) wirelessly sends a payment

approval notification to the customer on the wireless device and (v) sends the payment approval notification to the merchant system, wherein the central computer system in lieu of the merchant system having submitted the payment transaction request, the payment system maintains privacy of customer bankcard data from the merchant system.

Further, the claim language clearly states the central computer system 10 is independent of the merchant system 08 by the operation of the payment system 02, even though both the central computer system 10 and merchant system 08, just like the card processor 36, the cell phone 12 and the restaurant bill 26 are part of the privacy payment system 02. Hence even though the central computer system 10 is a necessary part of the payment system 02 it is independent of the merchant system 08.

Ground 1 Summary/Conclusion

Examiner errs in understanding the art of computer based systems and errs in assuming just because there is an interface between two computers of a system they are not independent of each other.

Hence the specification clearly find support in Figure 3, items 10 and 08; Figure 4, which shows the design features of the system 10 as an independent system from the merchant system 08; Figure 5, step 500, requiring the merchant to open an account with the system 10 and specification pages and lines related to the description of these features.

The above arguments are equally applicable for claims 24 and 30 and repeated herein by reference as though fully set forth here.

GROUND #2:

Examiner has rejected claims 18-32, under 35 USC 103(a) Obviousness Rejection as being unpatentable over Showghi et al., US Patent No. 6,473,739, in
5 view of US Pat No. 5,933,812 (Meyer et al, 812).

Appellant submits such rejection is improper under 35 USC 103(a) and Graham v. Deere which governs determination of obviousness by the USPTO.

Examiner misconstrues and misunderstands the nature and scope of the
10 claimed subject matter" as used in the claims in light of the specification and thus has erred in applying the "Broadest reasonable construction" standard and as a basis for 103(a) obviousness rejection.

Further Examiner misunderstands and mis-cites KSR v. Teleflex, and its seven rationales to support 103 (a) rejections, under an obviousness enquiry.

Issue before the Board of Appeals:

Examiner misunderstands and misconstrues the nature and scope of the claims and the problem being solved by the claimed subject matter relative to the problem being addressed in the cited prior art or what the prior art teaches individually or in any
20 combination.

Given that lack of understanding of the nature and scope of the claims at issue relative to the cited prior art, Examiner then proceeds to misapply the Graham v. Deere obvious enquiry analysis to the claims.

Specific reasons for this misapplication of Graham v. Deere obviousness
25 analysis by the Examiner are detailed in this Brief with the help of headings as on the next page:

	<u>Title</u>	<u>Page</u>
	A. Claimed Subject Matter Summary	32
5	B. The problem being solved by the claimed subject matter:	32
	C. Solution to the problem by the claimed subject matter	33
	D. What the cited prior art teaches	35
10	E. Structural differences between the cited prior art and the claimed subject matter	36
	F. Utility and useful of these structural differences between the cited prior art and the claimed subject matter.	38
15		
	G. Response to Examiner's Assertions and Statements in the Examiner's OA Response dated 4-27-2010.	39
20	H. Analysis of how the examiner misapplies the <u>Graham v. Deere</u> obvious enquiry analysis.	40
	I. Misapplication or the <u>Graham v. Deer</u> Ordinary Skill in the art enquiry and misapplication of <u>KSR v. Teleflex</u>	43
25		
	J. Detailed 103(a) obviousness analysis	44
	K. Summary and Conclusion	56

A. Claimed Subject Matter Summary

The claimed subject matter teaches a unique payment system that facilitates payments from customers to restaurant merchants in the restaurant when a bill for payment is presented to the customer without divulging customer identity data and bankcard data to the merchant and merchant computer systems. The claimed subject matter Payment System is unique because:

(a) The claimed Payment System does not transfer customer private Identity (Id) data and bankcard data to the restaurant merchant computer systems and thus eliminates the potential theft of the customer data from the merchant systems themselves.

(b) The claimed Payment System is unique because it uses a restaurant bill and a wireless device of a customer to initiate a payment transaction to the restaurant merchant by the customer in lieu of the payment transaction originating from the existing merchant point-of-sale (POS) computer systems as in prior art.

B. The problem being solved by the claimed subject matter:

Based on innumerable news items, data thefts of customer identity including their bank and card account numbers from the merchant systems, where those systems are interconnected on the internet have been occurring regularly and on large scales.

The theft of such data from merchant systems has taken variety of methods and approaches based on the security weaknesses in their point of sale computer systems and the supporting infrastructure. One news items described sniffing the data traffic transmission between the merchant point of sale systems and the merchant processing systems. Another news items has been hacking or breaking into the merchant computer systems connected on the internet.

The degree, pervasiveness and severity of such data theft has been so alarming that the bankcard industry, some years ago, promulgated a new standard of security called Payment Card Industry (PCI) standard, popularly known in the security industry as PCI standard for the merchant to comply with to address this problem of pervasive and large scale theft of identity and bankcard data from the merchant systems.

The PCI standard requires the merchants to comply with the requirements of security practices of the security industry in an effort to reduce such incidences of Id data theft. However, compliance with the PCI standard has provided some security, it has not been successful in eliminating data theft as the hackers have always figured new ways to attack and steal such data.

C. Solution to the problem by the claimed subject matter

The claimed subject matter teaches a Payment System that makes possible payments to merchants from their customers without the merchants and their merchant computer systems ever receiving and having the customer Id data as they do now for processing a payment transaction. What the claimed subject matter teaches has never been possible and done before by the cited prior art because the payment infrastructure has been built with the merchant receiving customer Id and bankcard data as part of a payment processing transaction.

The claimed subject matter takes the same payment infrastructure and makes novel and innovative changes to it to create the Payment System of the claimed subject matter, yet these changes are transparent to both the merchant and the card issuing banks and yet makes possible a payment from customer, their card issuing banks, to the restaurant merchants without giving or transferring for any time customer bankcard data to the merchant systems.

Further, the claimed subject matter is not only useful to the customer to prevent the theft of their Id data, the primary victims of Id theft, but it is also useful to the merchants, as it avoids from them the business liability risk of protecting the customer data they receive in their possession for processing the payment transaction. Further, the claimed subject matter is useful to the bankcard card issuing banks, as they do not have to create new account numbers to replace the old numbers once they have been stolen or presumed stolen. Thus the theft of id data has created victims of all of these entities, the customer, the card-issuing bank and the merchants and their support intermediaries.

The claimed subject matter Payment System for the merchants, directly and for the bankcard industry indirectly avoids a business liability risk of acquiring and protecting and safeguarding customer data in the Internet interconnected world, an interconnected world, where any mal-intentioned entity anywhere globally has the means and wherewithal to be able to break into computer systems, globally, to steal data.

The claimed subject matter, takes the existing prior art payment infrastructure and makes novel changes to it that do not alter the merchants getting paid using the same payment infrastructure and the card-issuing banks not be impacted by this change, and yet make possible a payment from the customers to their restaurant merchants without the merchants receiving the customer Id and bankcard data.

The scope and nature of the claimed subject matter summarized as above has been totally misunderstood by the examiner and has formed the basis of examiner's obviousness 103(a) rejections in view of the cited prior art.

As an illustrative example of Examiner's misunderstanding of the payment system of the claimed subject matter, on page 3, of the Final OA dated 4-27-2010, Examiner makes statements that Showghi et al teach or suggest protection of the bankcard data from the merchant point of sale computer systems.

With due respect to the examiner these are entirely inaccurate statements as the Showghi et al does not teach or suggest protection of the bankcard data from the

merchant computer systems. With due respect to the Examiner's these assertions and statements are entirely and wholly inaccurate and predicate the examiner's 103(a) obviousness rejections.

5 **D. What the cited prior art teaches**

What Showghi teaches and does not teach

Showghi art is on remote ordering system for food and souvenir items in a sports stadium venue from a stadium seat and payment for the same using a wireless
10 communication device.

Showghi is on remote ordering system and method using a wireless communication device, for food in a venue from a stadium seat and payment for it. For payment of the food items, Showghi uses traditional prior art methods, where the merchant system processes the payment transaction. Hence, Showghi prior art is on
15 the convenience of remote ordering food and paying for such food from a stadium seat in a sports venue from a vendor merchant using a wireless communication device from a seat in a stadium venue.

In Showghi, different methods of payment are suggested that include, pre-
20 registering patron bankcard data with the venue merchant at the time of entry to the venue, sending bankcard data via a customer cell phone device to the venue merchant system, or alternate forms of payment that include billing the cost of the food items to a telephone bill of the customer, where the telephone company may provide this type of payment service for small dollar amounts to a merchant.

25

What Meyers teaches and does not teach

Meyers teaches a portable payment transaction terminal for use in eating and drinking establishments that has a data entry keypad and a display on top of the terminal, has a card reader module in the terminal housing, for use for payment of
30 the amount of the check by a guest, a docking station, a microprocessor with an operating system in the terminal for managing data entry, message display, card

reading, transaction message formatting, and storing functions for processing a card transaction and communicates a transaction data message to an external transaction terminal system for completion of transaction processing steps. The portable terminal has a docking station for communication with a transaction
 5 terminal.

Examiner has rejected claims 18-32, under 35 USC 103(a) Obviousness Rejection as being unpatentable over Showghi et al., US Patent No. 6,473,739, October 29, 2002, Remote Ordering System, in view of Meyers, US patent No.
 10 5,933,812, August 3, 1999, Portable Transaction Terminal System.

Neither the Showghi prior art or the Meyers prior art teach individually or in any combination the protection of the customer bankcard data from the merchant system. Further, neither of the prior art individually or in any combination teach
 15 elements of claim 18, 24 and 30, including an independent central computer system, a restaurant bill showing a service code with merchant identification to the central computer system, the central computer system processing a payment transaction in lieu of the merchant system, and sending by the central computer system, payment approval notification wirelessly to the wireless device of the customer and sending
 20 the payment approval notification to the merchant system.

E. Structural differences between the claimed subject matter and the cited prior art:

25 The structure used in the cited art and claimed subject matter, and their differences are identified here. There are four such structure items, that of (i) a restaurant merchant point of sale (POS) computer system, (ii) a customer wireless device, (iii) a card-database and (iv) a restaurant bill. Each of these structure items and their differences are identified here.

30

1. Restaurant Merchant POS:

Showghi et al teaches a merchant POS computer system at the entrance to the sports stadium that receives and/or stores customer bankcard data as incident to processing a payment transaction when the customer remote orders food from a stadium seat either using customer wireless device or merchant loaned wireless device for the event.

In contrast, in the claimed subject matter, the restaurant merchant point of sale computer systems do not receive or store customer identity or customer bankcard data. The restaurant computer systems interface with the independent central system to receive only a payment approval notification, as received from the card-authorization network, and forwarded to the merchant computer system with data that identifies the table number and the server number, that was created in the service code of the restaurant bill or check.

2. Customer Wireless Device

Showghi et al teaches either a merchant loaned wireless device or a customer owned wireless device that wirelessly connects to the merchant owned merchant computer system to receive orders for food items and processes a payment either with a customer provided bankcard data, if using a customer wireless device or using merchant pre-stored bankcard data if using a merchant loaned wireless device.

In contrast, the claimed subject matter teaches a customer owned wireless device that is not used for ordering food and does not interface or connect to any merchant system,. Instead the customer wireless device receives input of a service code (service code is used to identify the merchant to the central system) and payment amount and directly connects to a third party central system, independent from the merchant system to be able to process a payment transaction from the pre-stored customer bankcard in the central system to the merchant and receive payment approval notification from the central system.

3. A card database in the Central System:

Showghi teaches a card database for when the Showghi merchant loans a merchant owned wireless device to the customer for use in the stadium and receives the bankcard data from the customer to be able to use the loaned wireless device to order food and pay for it with the bankcard.

In contrast, in the claimed subject matter an independent central system that has a customer bankcard database, where that card database is used exclusively to interface with card-issuing banks for processing a payment transaction from the customer to the merchant.

4. Restaurant Bill

Showghi does not teach a restaurant bill only a venue ticket that identifies a customer location in the stadium.

In contrast, the claimed subject matter teaches a restaurant bill that is given to a customer in a restaurant and that has a service code on the bill. The service code identifies the merchant to the independent third party central system. The bill also has a payment amount. Where both of these items, service code and the payment amount are input into the customer wireless device by the customer to initiate a payment transaction from the customer to the merchant.

F. Utility and useful of these structural differences between the cited prior art and the claimed subject matter:

The utility and usefulness of the above identified structural differences between the cited prior art and the claimed subject matter is to teach the Payment System that protects the customer bankcard data and Id theft prone data from ever being copied or transferred into the restaurant merchant systems by use of (i) a customer wireless device (ii) a restaurant bill that has a service code and a payment amount on it for copying into the wireless device by the customer (iii) an independent third party central system which pre-stored customer bankcard data and merchant identification data (iv) and the payment processing logic in the central system processes a payment

transaction with the help of card authorization network from the customer to the restaurant merchant and sends a payment approval notification from the central system to the customer wireless device and send a payment approval notification from the central system to the restaurant merchant systems, for display to the restaurant merchant employees that the payment has been made by the customer.

The cited prior art neither teaches nor suggests the claimed functional structure, nor teach the results achieved by the claimed subject matter claims.

G. Response to Examiner's Assertions and Statements in the Examiner's Final OA dated 4-27-2010.

Through out the Examiner's Final OA response dated 4-27-2010, Examiner' makes assertions and statements that Showghi teach protection of the customer Id and bankcard data from the Merchant Computer systems. From page 3 of the Final OA response:

Regarding Claim 18; Showghi et al 739' disclose a payment system for restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, comprising: a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central computer system that is independent from the merchant system (col. 2, lines 56-67; col. 5, lines 17-22; col. 6, lines 27 – col. 7, line 8); a wireless device of the customer(22,24,26: Figure 2), (i) is entered a data of the service code, a payment amount (col. 5 , lines 17-22 & col. 7, lines 43-55), and (ii) the device wirelessly sends the data to the central computer system which pre-stores customer data and merchant data (i.e. wireless: Figure 2); central computer system has a processor that identifies (16,18) the customer (ii) processes a payment request from the customer to the merchant by retrieving customer and merchant data and submits a payment transaction request to an existing payment authorization network (col. 7, lines 43-55); (iii) receives a payment approval record from the payment authorization network (iv) wirelessly sends a payment approval notification to the customer on the wireless

device (col. 7, lines 43-55, that is acknowledges receipt of goods, acknowledges that the payment is going through); sends the payment approval notification to the merchant systems, wherein the central computer system in lieu of the merchant system having submitted the payment transaction request (col. 2 lines 56-67), the payment system maintains privacy of customer bankcard data from the merchant system (col. 7, lines 43-55, col. 5, lines 32-38, i.e. through the internet service provider).

With due respect to the examiner these are entirely inaccurate statements as the Showghi et al does not teach or suggest protection of the bankcard data from the merchant computer systems. With due respect to the Examiner's these assertions and statements are entirely and wholly inaccurate and predicate the examiner's obviousness rejections.

H. Analysis of how the examiner misapplies the Graham v. Deere obvious analysis.

Showghi et al does not teach protecting the bankcard data from the merchant systems themselves. Examiner fails to understand the nature and scope of the claims for such a Payment System in comparing the claimed features to the prior art as the main cited prior art, that of Showghi is on customer convenience in remote ordering food in a stadium and paying for it. Showghi does not even begin to address this issue and problem and thus cannot and does not teach or make obvious the claimed subject matter.

Application of Graham v. Deere obvious analysis is a four sequential step enquiry. **The first leg of this enquiry is nature and scope of the claims in view of the prior art.**

Under this first leg of the enquiry, the distinctions and differences between the claims and the prior art are discerned and if such differences are such that prior art

does not teach the same subject matter or is on a different subject matter altogether, the claims are prima facie not obvious. If the claims are prima facie not-obvious under this enquiry, there is no need to pursue and proceed to the second leg of the Graham v. Deere obviousness enquiry related to the analysis of the claims and differences from the prior art in view of the ordinary skill in the art person.

If some of the elements of the claimed subject matter are so novel that they are not present in any single prior art or a combination, then the claims are prima-facie not obvious. As a simplified illustration of this first leg of the obviousness enquiry, If the prior art teaches solution to problem A and the claims teach the solution to a problem B and where problem A and B are unrelated then the claims are prima facie not obvious over the prior art.

Examiner misunderstands and thus misapplies the first leg of the enquiry for the following specific reasons;

The problem being addressed by the claims and the problem being addressed by the cited prior art.

Now addressing what is the problem being addressed by the claims and the problem being addressed by the cited prior is to know and learn what is a bank issued bankcard and how such a bankcard driven payment transaction at a merchant POS operates and is handled by the POS and the merchant systems.

The nature of a bankcard driven payment transaction (either a credit or a debit card) is and has been that the bankcard data is given/transferred /made available to the merchant computer systems and or merchant employees at a merchant point of sale (POS) for the merchant systems then to process a payment transaction from the card issuing bank to the merchant bank using a card authorization and fulfillment network.

That is, there is no other way to make a payment to merchant without giving them the bankcard data by a number of means disclosed in the cited prior art.

**In contrast, the nature and scope of the claims are directed how to
5 conduct and make a payment transaction without ever
giving/transferring/making available bankcard data to the merchant systems.**

To accomplish that unique and novel objective, the claims teach the use of (i) a restaurant bill with a service code and a payment amount and (ii) a customer wireless
10 device that is entered these two items of data and the wireless device working in
conjunction with a independent third party central system to process a payment from
the customer to the restaurant merchant of the bill. . These elements are present in
the claimed subject matter and that is not taught by any cited prior art or any
combination of the cited prior art.

15

**Examiner fails to understand this critical distinction in the nature and
scope of the claims against the cited prior art.**

The ordinary skill person leg of the obviousness enquiry is relevant only if the
20 claimed subject matter and the cited prior art solve the same problem and if all of the
elements of the claimed subject matter are present in the cited prior art. If the prior art
does not even begin to address the problem being solved by what is claimed then
there is no reason to go to the second leg of the enquiry of the person of ordinary skill
in the art.

25

**Now addressing the nature and scope of the claims of the claimed subject
matter and the cited prior art, for each of the independent claims:**

Independent claim 18 teaches elements (a) to (c) that teach the use of
30 restaurant bill with a service code and a payment amount, a wireless device of a

customer and an independent central system from the merchant system that are not taught by any cited prior art combination.

Independent claim 24, a method version of claim 18, teaches elements (a), (b),
5 and (e) features that are not taught by any cited prior art combination.

Independent claim 30, teaches elements (a) and (b) features that are not taught by any cited prior art combination.

10 **I. Misapplication or the Graham v. Deer Ordinary Skill in the art person enquiry and misapplication of KSR v. Teleflex**

The second leg of the Graham obviousness enquiry requires the identification of the ordinary skill in the art person and whether such ordinary skill person would
15 combine what is taught by the cited individual references and what is commonly known or is in the purview of the person of ordinary skill in the art to come up with the claimed subject matter.

Hence the relevance of the ordinary skill in the art person enquiry is only
20 relevant when the cited prior art teaches the same elements as the claimed subject matter to determine if the person of ordinary skill in the arts would combine such teachings where the KSR has amplified the person of the ordinary skill in the art to use common sense in using cited prior art elements absent a teaching, suggestion or motivation. KSR does not require a person of the ordinary skill in the art to create
25 entirely new elements that did not exist before in the cited prior art.

The second leg of enquiry is not reached where the first step of the enquiry on the nature and the scope of the claims in view of the prior art, shows that the nature and scope of the claims is such that, that is not taught by the cited prior art or the
30 common sense of the person of ordinary skill in combining the prior arts.

The claimed subject matter here, teaches a Payment System that protects the customer bankcard data and Id theft prone data from ever being copied or transferred into the restaurant merchant systems by use of (i) a customer wireless device (ii) a restaurant bill that has a service code and a payment amount on it for copying into the wireless device by the customer (iii) an independent third party central system which pre-stored customer bankcard data and merchant identification data (iv) and the payment processing logic in the central system processes a payment transaction with the help of card authorization network from the customer to the restaurant merchant and sends a payment approval notification from the central system to the customer wireless device and send a payment approval notification from the central system to the restaurant merchant systems, for display to the restaurant merchant employees that the payment ahs been made by the customer.

The cited prior art neither teaches nor suggests the claimed functional structure, nor teach the results achieved by the claimed subject matter claims.

Since these features are not taught or suggested by any prior art and thus the need for the second leg of the obviousness enquiry and KSR amplification of person of ordinary skill in the art does not even arise.

J. Detailed 103(a) Obviousness Analysis

35 U.S.C. 103(a) rejections over Showghi in view of Meyers

Examiner has rejected system claims 18-32, under 35 USC 103(a) Obviousness Rejection as being unpatentable over Showghi et al., US Patent No. 6,473,739, October 29, 2002, Remote Ordering System, in view of newly cited prior art Meyers, US patent No. 5,933,812, August 3, 1999, Portable Transaction Terminal System.

Neither the Showghi prior art or the newly cited Meyers art teach individually or in any combination the protection of the customer bankcard data from the

merchant system. Further, neither of the prior art individually or in any combination teach elements of claim 18, 24 and 30, including an independent central computer system, a restaurant bill showing a service code with merchant identification to the central computer system, the central computer system processing a payment transaction in lieu of the merchant system, and sending by the central computer system, payment approval notification wirelessly to the wireless device of the customer and sending the payment approval notification to the merchant system.

Distinguishing Meyers

Analyzing Meyers first, Meyers teaches a portable payment transaction terminal for use in eating and drinking establishments that has a data entry keypad and a display on top of the terminal, has a card reader module in the terminal housing, for use for payment of the amount of the check by a guest, a docking station, a microprocessor with an operating system in the terminal for managing data entry, message display, card reading, , transaction message formatting, and storing functions for processing a card transaction and communicates a transaction data message to an external transaction terminal system for completion of transaction processing steps. The portable terminal has a docking station for communication with a transaction terminal. The distinguishing features between Meyer's portable transaction terminal and independent claims 18, 24 and 30 of this invention are:

(i) claim 18 teaches a wireless device and a wireless device of the customer, whereas Meyers teaches a wired portable terminal that is owned by the restaurant.

(ii) Claim 18 wireless device connects to a central computer system wirelessly, where the central computer system is separate and independent from the merchant computer system, whereas the Meyer's portable terminal connects by a wire to a merchant transaction terminal, which is owned by the merchant and is part of the merchant system.

(iii) Claim 18 teaches that the payment approval notification goes to the customer wireless device wirelessly, separate and independent from the payment approval notification which is sent to the merchant system, whereas, in Meyers, .the

payment approval notification goes to the merchant only for record keeping and printing a receipt.

(iv) Claim 18 does not need nor require a card reader to begin a payment transaction using a customer's bankcard, whereas, the Meyer's Portable terminal
5 requires a card reader to operate and begin a payment transaction.

(v) Claim 18 does not need nor require a printer to print the completion of the payment transaction, whereas, the Meyer's Portable terminal requires a printer to complete a payment transaction.

(vi) Claim 18 teaches a wireless device that communicates wirelessly to a
10 central computer system, whereas, Meyers teaches a docking station for communication with a transaction terminal.

(vii) Claim 18 teaches a payment system that does not transfer customer bankcard data to the merchant terminal and merchant system, whereas Meyers teach a Portable terminal that does transfer customer bankcard data to the merchant
15 terminal and merchant computer system.

Distinguishing Showghi

Showghi art is on remote ordering system for food and souvenir items in a sports stadium venue from a stadium seat and payment for the same using a wireless
20 communication device.

Showghi is on remote ordering system and method using a wireless communication device, for food in a venue from a stadium seat and payment for it. For payment of the food items, Showghi uses traditional prior art methods, where the merchant system processes the payment transaction. Hence, Showghi prior art is on
25 the convenience of remote ordering food and paying for such food from a stadium seat in a sports venue from a vendor merchant using a wireless communication device from a seat in a stadium venue.

In Showghi, different methods of payment are suggested that include, pre-
30 registering patron bankcard data with the venue merchant at the time of entry to the venue, sending bankcard data via a customer cell phone device to the venue merchant

system, or alternate forms of payment that include billing the cost of the food items to a telephone bill of the customer, where the telephone company may provide this type of payment service for small dollar amounts to a merchant.

5 The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

10 **Examiner by equating claim terms "central computer system" and "service code" as used in the claims in light of the specification with Showghi terms "Vendor Merchant system" and "Identification code" respectively, has erred in applying the "Broadest reasonable construction" standard and as a basis for 103(a) obviousness rejection.**

15 **First, in the obviousness rejection, the examiner misconstrues and errs (i) in equating the "central computer system" of the present invention claims 18, 24 and 30 with the Showghi "vendor merchant system".**

20 Showghi vendor merchant system has a remote control station 12, venue server 16 and order processing server 18.

25 Examiner misconstrues the Showghi prior art, specifically items, remote control station 12, venue server 16 and order processing 18 items as shown in Figure 1 and 2, and col.2 lines 56-67,. The Showghi items 12, 16 and 18, in Figures 1 and 2, collectively represent a "vendor merchant system" and not a "central computer system" of the present invention that is separate from a merchant system.

30 Specifically, Showghi item 12, is a kiosk/station where a patron can rent a wireless device and that is true for both Figures 1 and 2. When the patron rents a device at kiosk/station 12, payment arrangements are made by the patron providing debit/credit card data to the kiosk/station 12. When the patron orders food by the

wireless device, either rented at the station 12 or his/her own wireless device, as shown in Showghi Figures 1 and 2, the order is routed to the venue server 16.

From Showghi, col. 4, lines 19-23, In Figure 1, the base trans receiver nodes 14 and other client work stations are networked to the local server computer 16, which maintains system records, and facilitates the overall operation of the remote ordering system. The venue server 16 receives the order and distributes the orders to the order fulfillment server 18 that are closest to the patron seat in the stadium.

From Showghi col. 6, lines 17 to 26: most venues will necessarily have several order fulfillment centers. As venues can be quite large, it would be impractical to deliver all orders from a single processing location, but to have multiple locations in a large venue in order to keep proximity to the customer, thus the route for physical delivery, reasonably minimized. To assure prompt and accurate delivery of orders, it is necessary to identify the location of the patron's seat to determine which order fulfillment center within the venue to send the order to. Hence the fulfillment server 18 receives the order from the venue server 16, to the fulfillment center 18, which is closest to the patron.

It is abundantly clear from the Showghi description of items remote control station 12, venue server 16 and order processor 18, as above, where each item performs a function of the venue merchant system and they collectively represent a merchant system, where kiosk item 12 has the task of renting the wireless devices and collecting payment data, venue server item 16 as the task of receiving the order, and distributing the order to order fulfillment center 18 closest to the patron in the venue.

Therefore the "central computer system" of present invention that is independent from the merchant system is entirely different than the Showghi "vendor merchant system" implemented in Vendor merchant servers 12, 16 and 18, as they perform an entirely different function.

Second, Examiner, in the obviousness rejection, also misconstrues Showghi "identification code" with the "service code" of the present invention claims 18, 24 and 30.

5 Showghi uses an identification code to specify patron's seat location in the stadium venue, where such identification code is printed on the event ticket, as in Showghi Figure 6, ticket 62 and identification code 64. When the patron communicates to the venue merchant, the venue merchant system identifies the patron and or location of the patron in the stadium by this identification code.

10 In contrast, the service code of this invention, as in claim 18, 24 and 30, includes a merchant number that identifies the merchant to the central computer system that is separate from the merchant system, for retrieving merchant identification data in the central computer system for processing a payment transaction.

15 **Hence, the identification code of Showghi is inherently different than the service code of the claims 18, 24 and 30, where the Showghi identification code as printed on the event ticket identifies the patron by the seat number, and in contrast, the service code printed on a restaurant bill in a restaurant includes a**
20 **merchant number that identifies the restaurant merchant to the central computer system that is separate from the merchant system.**

Third, In contrast, in the current invention, the claim group 18-23 is for protecting customer identity bankcard data from the merchant systems and thus
25 **have an entirely different scope than Showghi et al.**

The independent claim 18 provides:

18. A payment system for restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, comprising:

a. a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central computer system

5 that is independent from the merchant system;

b. a wireless device of the customer, (i) is entered a data of the service code, a payment amount, and an optional tip into the device, and (ii) the device wirelessly sends the data to the central computer system which pre-stores customer data and merchant data;

10 c. the central computer system has a processor (i) that identifies the customer (ii) processes a payment request from the customer to the merchant by retrieving customer and merchant data and submits a payment transaction request to an existing payment authorization network (iii) receives a payment approval record from the payment authorization network (iv) wirelessly sends a payment
15 approval notification to the customer on the wireless device and (v) sends the payment approval notification to the merchant system, wherein the central computer system in lieu of the merchant system having submitted the payment transaction request, the payment system maintains privacy of customer bankcard data from the merchant system.

20 The claim 18 has element (a) to (c) that are not taught by Showghi, as they relate to a central computer system independent from the merchant system, a paper bill with a service code, and how the central computer system works with a customer wireless device and the service code to effect a payment to the merchant and that
25 does not copy/transfer customer id and bankcard data to the merchant point of sale systems, as they do not process the payment transaction.

**Hence, the scope and content of prior art and the differences between the claimed invention and the prior art are such that the current invention has
30 an entirely different scope than the prior art.**

Obviousness over Showghi in view of Meyers

From Showghi abstract: A system and method for enabling patrons at large-scale spectator events at confined venues having identifiable seats utilizes conventional or special hand-held, wireless communication devices to self-order food, drink and souvenir items from remote order fulfillment locations within the venue for delivery to identified seats. Hierarchical menus are provided for display of items for purchase on the devices. A seat identification code is associated with the order when transmitted via the existing telecommunications and Internet infrastructure. Receipt of the order is acknowledged, and a confirmation code is sent upon receipt of order delivery. There is automatic electronic payment for the order charged to a patron account that is established by prearranged means.

In Showghi, as sports event attendees walk into the stadium, they may go to a vendor kiosk, where (i) they register with the vendor with their stadium section and seat number, (ii) provide a bankcard data for copying into the vendor merchant computers, and (iii) are given a customized wireless device by the vendor merchant that displays menu and enables placing an order for the selected items.

The sports patron then from their respective stadium seats, choose to order items by using the custom wireless device of the vendor. The vendor receives the order, delivers the order to the stadium seat. When the patron acknowledges on the wireless device, that the order has been satisfactorily received, the vendor merchant then charges the cost to the already provided bankcard and or account of the customer.

As an alternative, in Showghi, the customer patron may chose to use his/her own cell phone, connect to the vendor system, is presented a menu, selects the items and pays for them by providing his/her bankcard data. When the order, including the payment means such as bankcard data is received by the vendor system, it delivers the order and charges the order to customer bankcard data. The vendor computer system for accomplishing these tasks related to receiving food item orders, delivering

the order to stadium seat, and processing payments has three subsystems, (i) for customer registration and handing out customized wireless devices, (ii) for tracking receiving and delivering of orders to stadium seats and (iii) for processing payments using customer bankcards with a prior art card authorization network.

5

Fourth, for those with Showghi and Meyers ordinary skill in the art, the current invention system and method of payment would not have been obvious, based on Ordinary Skill in the art Analysis based on KSR v. Teleflex.

10 Showghi art is on remote ordering food items from a stadium seat by a wireless device and paying for them by any number of prior art payment means common in the industry.

15 Showghi ordinary skill in the art is on remote ordering system, using any number of traditional prior art payment systems for the remote order. The current payment system is for secure payment systems that do not transfer the customer identity bankcard data to merchant systems. Hence that would not be obvious to those with Showghi ordinary skill in the art, as to those of Showghi ordinary skill in the art, the objective to protect customer id bankcard data from the merchant systems
20 themselves did not exist and is not accomplished by the Showghi art.

25 Showghi discloses a variety of vendor payment methods such as (i) turning over bankcard or bank account data at time of check in at vendor merchant kiosk, (ii) supplying bankcard data via wireless telephone at time of ordering and (iii) paying by charging on the phone bill and the like. Showghi does not disclose the method of payment where the payment can be made without turning over any customer id data including bankcard data and even telephone number data. Hence Showghi ordinary skill in the art is directed to remote ordering in a stadium and paying by any number of prior art methods and is not even close and not directed to protecting the
30 customer id data in a payment transaction.

For those with Showghi ordinary skill in the art, the problem of securing customer identity bankcard data from merchants themselves is not addressed and/or accomplished, and thus cannot be obvious.

5 Hence, Showghi art does not teach privacy and or protection of the customer bankcard data from a merchant system. In contrast, the present claims 18, 24 and 30 are directed to methods and systems for the privacy protection of the bankcard data from the merchant system during a payment transaction to a restaurant merchant.

10 **Claim 18 teaches a paradigm shift accomplishment to paying a restaurant merchant., where the merchant does not receive customer bankcard identity data and thus does not process the payment, while still able to receive and receiving a payment approval notification of the payment from the customer's bankcard from the existing card authorization network and that**
15 **would not be obvious to those with Showghi ordinary skill in the art for the reasons as above.**

 The distinguishing features between Showghi, remote ordering system and Meyers portable terminal and independent claims 18, 24 and 30 of this invention are:

20 Given these distinguishing features, claim 18 cannot be obvious Showghi and in view of Meyers, as the need to protect customer bankcard data was not in the purview of those with ordinary skill in the Showghi, remote food ordering system in a venue and Meyer's, portable transaction terminal art.

25 In contrast, current invention claims 18-23 teach a payment system for payment to restaurant merchants, by a customer, on being presented a paper bill with a service code with the help of a central computer system that does not copy/transfer customer identity bankcard data to the merchant point of sale employees and computer systems.

Thus claim 18 facilitates secure payment to restaurant merchants while in the restaurant, by the restaurant customer, without transferring customer identity bankcard data to the merchant employees and merchant computer sales systems, from where the customer identity bankcard data has been subject to theft and
5 misuse.

Claim 18 teaches a paradigm shift accomplishment to paying a restaurant merchant., where the merchant does not receive customer bankcard identity data and thus does not process the payment, while still able to receive and receiving a
10 payment approval notification of the payment from the customer's bankcard from the existing card authorization network.

This paradigm shift to paying a restaurant merchant is accomplished with the help of a central computer system, an intermediary or third party central computer
15 system, that is independent and separate from the first party, the customer and also separate from the second party the restaurant merchant, thus being a third party central computer system and a service code printed on the restaurant bill, that identifies the merchant to the central computer system, and a wireless device of the customer to be able to connect to the central computer system and send the service
20 code and the payment amount to the central computer system.

Therefore, claim 18 recites use of a central computer system that is independent and separate from the merchant systems. The central computer system pre-stores customer bankcard data and also pre-stores merchant data for restaurant
25 merchants.

For those restaurant merchants who have an account in the central computer system by having pre-stored their data in the central computer system, their point-of-sale system, either manually or electronically, is equipped to create a paper bill that
30 is presented to the customer for payment, where the paper bill has printed on it, in addition to cost of meals, tax, and total payment required, a service code. The

service code contains merchant identification number, a table number and a serve number.

For those customer who have an account with the central computer system having pre-stored their data in the central computer system, when connect to the central computer system on his/her web-enabled cell phone, are presented a web data form from the central computer system The customer transfers or enters the service code to the form and then enters the total dollar payment amount and an optional tip and sends the completed form to the central computer system server.

Graham v. Deere, governs the application of 35 USC 103(a), at US PTO. Under the four part Graham inquiry, "The underlying factual inquiries include [1] the scope and content of the prior art; [2] the differences between the claimed invention and the prior art; [3] the level of ordinary skill in the art; and [4] objective evidence of nonobviousness, including commercial success, copying, and long-felt need." State Contr. & Eng'g Corp. v. Condotte America, Inc., 346 F.3d 1057, 1068 (Fed. Cir. 2003), citing Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966).

Appellant submits, that under factual inquiries [1] that the scope and content of prior art and [2] the differences between the claims of this invention and prior art is such that an obviousness rejection has no grounds. In view of these arguments, claim 18 is not obvious over the Showghi in view of Meyers. Dependent claims 19-23 are likewise not obvious over the same prior art. Therefore, the obviousness rejection fails the Graham v. Deere test.

The above 103(a) obviousness analysis is equally applicable for independent claim 24 and its dependent claims and is set forth here by reference as though fully set forth here.

The above 103(a) obviousness analysis is equally applicable for independent claim 30 and its dependent claims and is set forth here by reference as though fully set forth here.

K. Summary & Conclusion

Examiner has erred in applying the Graham v. Deere obviousness enquiry analysis in understanding the nature and scope of the claimed subject matter ,in
5 misstating that Showghi et al teaches protection of the customer id and bankcard data from the restaurant merchant computer systems themselves.

Examiner has erred in equating the new element “service code on a restaurant bill” with a sport event venue ticket in the cited prior art in Showghi and in equating “the
10 independent central system, independent of the restaurant merchant system” with a venue merchant system of the cited prior art Showghi et al

(8) CLAIMS APPENDIX

Claims involved in this appeal are:

5 Claims 1-17 (cancelled)

18. (currently amended) A payment system for restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, comprising:

- 10 a. a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central computer system that is independent from the merchant system;
- b. a wireless device of the customer, (i) is entered a data of the service code, a payment amount, and an optional tip into the device, and (ii) the device
- 15 wirelessly sends the data to the central computer system which pre-stores customer data and merchant data;
- c. the central computer system has a processor (i) that identifies the customer (ii) processes a payment request from the customer to the merchant by retrieving customer and merchant data and submits a payment transaction request
- 20 to an existing payment authorization network, (iii) receives a payment approval record from the payment authorization network (iv) wirelessly sends a payment approval notification to the customer on the wireless device and ~~[[iv]]~~ (v) sends the payment approval notification to the merchant system, wherein the central computer system in lieu of the merchant system having submitted the payment transaction
- 25 request, the payment system maintains privacy of customer bankcard data from the merchant system.

19. The system as in claim 18, further comprising:

- the central computer system stores (i) customer identification data that can
- 30 identify a customer, (ii) a plurality of customer bank account data and (iii) wireless device notification data that can notify a customer on the wireless device.

20. The system as in claim 19, further comprising:

the customer identification data includes use of a personal number that is a combination of wireless device telephone number and a personal identification
5 number that is entered into the wireless device.

21. The system as in claim 18, further comprising:

the central computer system stores merchant identification data that identifies the merchant to a payment authorization network and merchant computer system
10 notification data that notifies a merchant using the merchant computer system.

22. The system as in claim 18, where the service code, further comprising:

the service code includes in addition to the merchant number identification, a table number and a server number.

23. The system as in claim 22, further comprising:

the payment approval notification to the merchant system includes the table number and the server number enabling a display terminal interfaced to the merchant system to display payment status data that includes a date, a time, a
20 transaction reference, the table number, the server number, the payment amount, tip and a payment status.

24. A method of payment to restaurant merchants that provides privacy of customer bankcard data of a customer from a merchant system, comprising the
25 steps of:

a. enabling presenting a restaurant bill that shows a payment amount and a service code, the service code includes a merchant number identification to a central computer system that is independent from the merchant system;

b. enabling entering into a wireless device of the customer, (i) the service
30 code, a payment amount and an optional tip into the device, and (ii) wirelessly

sending the data to the central computer system which pre-stores customer data and merchant data;

c. enabling identifying the customer and processing a payment transaction from the customer to the merchant by the central computer system by retrieving
5 customer and merchant data and submitting a payment transaction request to an existing payment authorization network;

d. enabling receiving a payment approval record by the central computer system and wirelessly sending payment approval notification to the customer on the wireless device;

10 e. enabling sending payment approval notification to the merchant system, by the central computer system, wherein the central computer system in lieu of the merchant system having submitted the payment transaction request the payment system maintains privacy of customer data from the merchant system.

15 25. The method as in claim 24, further comprising the steps of:

enabling storing by the central computer system (i) customer identification data that can identify the customer, (ii) a plurality of customer bank account data, and (iii) wireless device notification data that can notify the customer.

20 26. The method as in claim 25, further comprising the steps of:

enabling using a personal number that is a combination of wireless device telephone number and a personal identification number as the customer identification data that can identify the customer in the central computer system and that is entered into the wireless device.

25 27. The method as the central computer system in claim 24, further comprising the steps of:

enabling storing in the central computer system, the merchant identification data that identify the merchant to a payment authorization network and merchant
30 computer system notification data that can notify the merchant by the merchant computer system.

28. The method as in claim 24, where the restaurant bill, further comprising the steps of:

including in the service code in addition to the merchant number identification,
5 a table number and a server number.

29. The method as in claim 28, further comprising the steps of:

enabling receiving the payment approval notification from the central
computer system into the merchant system including the table number and the
10 server number, displaying payment status data on a display terminal interfaced to
the merchant system, that includes, a date, a time, a transaction reference, the table
number, the server number, the amount, tip, and the payment status.

30. A privacy payment system for restaurant merchants, that protects customer
15 bankcard data from a merchant system, comprising:

(a) a customer wireless device that originates a payment request for payment
of a bill to a restaurant merchant, the bill has a service code that includes a
merchant number identification to a central computer system, that is independent
from the merchant system, the wireless device originates the payment request by
20 reading the service code and wirelessly sending to the central computer system;

(b) the central computer system has a processor that processes the payment
request with pre-stored customer data and merchant data using an existing payment
authorization network and forwards the payment approval notification to the
merchant system, wherein the central computer system in lieu of the merchant
25 system processing the payment request, the privacy payment system maintains
privacy of customer bankcard data from the merchant system.

31. The privacy payment system as in claim 30, further comprising:

the payment request bill identifies a payment amount and the service code as
30 printed on the bill, from the merchant system, and presented to the customer at the
merchant's premises includes a table number and a server number.

32. The privacy payment system as in claim 30, comprising:

the central computer system sends the payment approval notification to the customer on the wireless device, contemporaneously to sending the payment

5 approval notification to the merchant system.

(9) EVIDENCE APPENDIX

None

5

(10) RELATED PROCEEDINGS APPENDIX

None

CONCLUSION

Appellant submits, based on the arguments presented in this appeal, the
5 current claimed subject matter is entirely of a different scope and the current claims
18, 24 and 30 satisfy 35 USC 112 written description requirements and claims 18-32
are not obvious under section 35 USC 103(a) and Graham v. Deere test over the
cited combination of the prior art, based on arguments presented in this appeal brief.

10 Dated this the 21st day of September, 2010

Respectfully submitted,

15 

Tara Chand Singhal
Appellant

20 P O Box 5075
Torrance, California 90510
Telephone: (310) 540-4095

Appeal Brief 9-21-2010